

AI-TECH-15A

PATENT APPLICATION  
Serial No. 10/732,984REMARKS

Claims 24-48 are pending in the captioned Application in which claims 24-31 are rejected, claims 32-48 are allowed, and claims 1-23 and 49 were previously cancelled.

Claim 24 is amended to clarify that the electronic circuit substrate is a jumper substrate and that it is of a dimensionally stable material. Claims 25, 27, 28 and 29 are amended for consistency in referring to a jumper substrate as in amended claim 24. This amendment does not narrow the scope of any claim element or limitation and so is not limiting of any claim element or limitation, and Applicant reserves the right to the benefit of the doctrine of equivalents with respect thereto.

Rejection Under 35 U.S.C. §102(b):

Claims 24-28 are rejected under 35 U.S.C. §102(b) as being anticipated by US 6,008,993 to Kreft. The rejection is overcome by claim 24 as amended.

Kreft relates to chip card with chip 5 support element A, i.e. a contact face support element, and coil support element B which are combined by an electrically conducting adhesive material 7. (Abstract; column 2, lines 5-32; column 5, lines 10-36; Figs. 1a & 1b). Chip support element A has contact faces 4 which presumably provide contact patterns for a contact-type chip card, as in a conventional telephone card. (column 5, lines 12-15; column 1, lines 6-10). Kreft's chip support element A apparently has contacts locations at which conductive adhesive 7 is applied that are not at the ends thereof, but are inward from the ends thereof, and so has a length that is longer than the spacing between the contact faces 3 of coil support element B. (Figure 2).

Nothing in Kreft describes or suggests that the length of a jumper substrate of dimensionally stable material be the predetermined distance between contact sites of an insulating substrate for an electronic article or that the contact sites thereof be at the ends thereof. Nothing in Kreft describes or suggests that two different kinds of materials may be utilized for the insulating substrate and for the jumper substrate, whereby the use of dimensionally stable substrate material, which may be relatively expensive, may be limited to the jumper substrate, as may be done in Applicants' claimed method.

AI-TECH-15A

PATENT APPLICATION  
Serial No. 10/732,984

Applicants' claim 24 is patentable at least because it recites:

"providing an insulating substrate for the electronic article having an electrical conductor thereon, wherein the insulating substrate need not be of a material that is dimensionally stable, wherein the electrical conductor includes first and second contact sites spaced apart substantially a predetermined distance;

"providing an insulating electronic jumper substrate of a dimensionally stable material and having a length substantially the predetermined distance between first and second ends, having first and second contact sites at the first and second ends thereof, respectively, and having first and second terminals respectively connected to the first and second contact sites thereof;

"mounting an electronic device to the electronic jumper substrate with first and second contacts of the electronic device connected to the first and second terminals of the electronic jumper substrate; and

"then mounting the electronic jumper substrate to the insulating substrate with the first and second contact sites of the substrate electrically connecting with the first and second contact sites of the electronic jumper substrate,"

which is not described or suggested by Kreft.

Applicant's claims 25-28 are patentable at least because they depend from patentable claim 24. In addition, claim 30 recites a that the insulating substrate of a material that is not dimensionally stable at the melting temperature, which is not described or suggested by Kreft.

Accordingly, the rejection under 35 U.S.C. §102(b) is overcome and should be withdrawn.

Rejections Under 35 U.S.C. §103(a):

Claim 29 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kreft in view of US 6,629,366 to Kobayashi. The rejection is respectfully traversed.

Kreft is discussed above. Kobayashi relates to a method for producing a multilayer wiring board wherein a core substrate 29 is described at column 6, lines 18-37, as being supported by a conductor substrate 10 for enabling the multilayer wiring board 44 to be securely supported in the course of production thereof to thereby improve its (i.e. board 44's) dimensional stability. It is not seen that this reflects on the dimensional stability of the material per se.

Examiner's statement of a reason for obviousness is "to use dimensionally stable material for the electronic substrate of Kreft, as suggested by Kobayashi, for the purpose of

AI-TECH-15A

PATENT APPLICATION  
Serial No. 10/732,984

improving the stiffness of the substrate during manufacture" which does not appear correct since it is not seen where Kobayashi makes such suggestion. In addition, it is not seen that Kobayashi as referred to by the Examiner addresses the problem of dimensional stability addressed by Applicants or suggests Applicants' novel and non-obvious solution thereof, and so is simply irrelevant to any basis for combining the references.

Applicant's claim 29 is patentable at least because it depends from patentable claim 24.

Claim 30 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kreft in view of US 5,718,367 to Covell, II et al. The rejection is respectfully traversed.

Kreft is discussed above. Covell relates to a mold transfer apparatus for forming solder balls and the like. Column 10, lines 38-43 thereof relates to the materials of which a mold is to be made, and does not relate to an electronic article of the sort described and claimed by Applicants. Covell relates to molds and molding and so is non-analogous art that should not be considered, thereby removing the objection.

In addition, Covell at column 10, lines 38-43, teaches that the material of the mold and the material of the substrate should have matching coefficients of expansion and should have the property of dimensional stability. Covell thus teaches away from Applicants' claim 30 which recites a material that is not dimensionally stable.

Examiner's statement of a reason for obviousness is "to use a dimensionally unstable material for the substrate of Kreft, as suggested by Covell, II et al., for the purpose of improving solder reflow" which does not address the problem of dimensional stability addressed by Applicants or suggest Applicants' novel and non-obvious solution thereof, and so is simply irrelevant to any basis for combining the references. Examiner's statement is factually incorrect because Covell teaches having the property of dimensional stability. Moreover, it is not seen how a dimensionally unstable material would improve solder reflow as Examiner states.

Applicant's claim 30 is patentable at least because it depends from patentable claim 24. In addition, claim 30 recites a substrate of a material that is not dimensionally stable at the melting temperature of solder or electrically conductive adhesive, which is not described

AI-TECH-15A

PATENT APPLICATION  
Serial No. 10/732,984

or suggested by Kreft and/or Covell, whether taken individually or in proper combination.

Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kreft in view of US 5,718,367 to Credelle et al. The rejection is respectfully traversed.

Kreft is discussed above. Credelle relates to multi-feature-size electronic structures which include an elongated conductor 311 comprising an antenna (Column 5, lines 25-45).

Applicant's claim 31 is patentable at least because it depends from patentable claim 24.

Accordingly, the rejection under 35 U.S.C. §103(a) is overcome and should be withdrawn.

Allowable Subject Matter:

Regarding allowed claims 32-48, the Examiner's reasons for allowance set forth in paragraph 8 of the Office Action appear to paraphrase certain wording in certain of the independent claims and to lump the allowed claims together.

Applicants' note that allowed independent method claims 32 and 39 each comprise a combination of steps that include steps that are different from each other and from those recited in independent method claim 45. In addition, each of claims 32, 39 and 45 recites different limitations regarding similar steps and similar elements than are recited in others of the independent claims. Independent method claims 32 and 39 do have in common that the result of the method includes a plurality of electronic articles each including an individual jumper, whereas independent claim 45 has the result of individual jumpers.

In addition, the method of Applicants' claims is "for making a plurality of electronic articles" or "for making a plurality of electronic circuits," and is not for "providing a set of electronic devices..." as Examiner states.

Applicants maintain that each of allowed claims 32-48 is allowable in its own right because of the particular steps and combination of steps that each recites. In particular, and not as limiting other claims, claims 32-48 are allowable over and above the fact that claim 32 recites two "separating..." steps while claims 39 and 45 each recite only one "separating..."

AI-TECH-15A

PATENT APPLICATION  
Serial No. 10/732,984

step.

Thus, claims 32-48 are patentable because of the novel and non-obvious combination of steps recited therein, i.e. for reasons besides the separating step or steps, and including, but not limited to, the resulting structure.


Conclusion:

Applicant respectfully requests that the rejection be withdrawn and that the Application including claims 24-48 be allowed and passed to issuance.

The number of claims remaining being the same as or less than the number previously paid for, no fee is due in consequence of this timely filed response. However, should any fee be due in consequence of this response, please charge such fee and deposit any refund to Deposit Account 04-1406 of Dann, Dorfman, Herrell & Skillman.

The Examiner is requested to telephone the undersigned attorney if there is any question or if prosecution of this Application could be furthered by telephone.

Respectfully submitted,  
Dann, Dorfman, Herrell & Skillman, P.C.  
Attorneys for Applicant(s)

By:   
Clement A. Berard  
PTO Registration No. 29,613

March 3, 2005

Dann, Dorfman, Herrell and Skillman, P.C.  
1601 Market Street, Suite 2400  
Philadelphia, PA 19103

Telephone: 215-563-4100  
Facsimile: 215-563-4044